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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

APPEAL BRIEF FOR THE APPELLANTS

Ex parte Esa MALKAMAKI, *et al.*

REDUNDANCY SELECTION STRATEGY SCHEME

Serial No. 10/732,745  
Appeal No.:  
Group Art Unit: 2112

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Atty. Docket: 047092.00064

DDN/dc

Encls: Check No. 017937  
Appeal Brief



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re the Appellant:

Esa MALKAMAKI, *et al.*

Appeal No.:

Serial Number: 10/732,745

Group Art Unit: 2112

Filed: December 11, 2003

Examiner: Samir Wadie RIZK

For: REDUNDANCY SELECTION STRATEGY SCHEME

BRIEF ON APPEAL

January 22, 2008

I. INTRODUCTION

This is an appeal from the final rejection set forth in an Official Action dated July 10, 2007, finally rejecting claims 1-30, all of the claims pending in this application, as being unpatentable over U.S. Patent Publication No. 2004/0228320 of Laroia, *et al.* (hereinafter "Laroia, *et al.*"). A Request for Reconsideration was timely filed on October 1, 2007. An Advisory Action was issued on October 29, 2007, indicating that the claim amendments submitted on October 1, 2007 would be entered for purposes of appeal. A Notice of Appeal and a Pre-Appeal Brief Request for Review were timely filed on November 9, 2007 with petition for Extension of Time. A Notice of Panel Decision was mailed December 20, 2007, permitting the appeal to continue. This Appeal Brief is being timely filed within one month of receiving the Notice of Panel Decision (adjusted for the weekend and the Federal holiday).

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## II. REAL PARTY IN INTEREST

The real party in interest in this application is Nokia Corporation of Espoo, Finland. In particular, copies of an assignment from inventors to the assignee is recorded at the follow reel/frame locations: 014792/0457, 015768/0463, and 015694/0803.

### III. STATEMENT OF RELATED APPEALS AND INTERFERENCES

There are no known related appeals and/or interferences which will directly effect or be directly effected by or have a bearing on the Board's decision in this appeal.





#### IV. STATUS OF CLAIMS

Claims 1-30, all of the claims pending in the present application are the subject of this appeal. Claims 31-36 were previously cancelled in a Response dated April 9, 2007 and are, therefore, not included in this appeal. Claims 1-30 are rejected in view of alleged prior art. Claims 1, 2, 7-17, 21-23, and 25-30 were rejected under 35 USC §102(e) as being anticipated by US Publication No. 2004/0228320 (Laroia). Remaining claims 3-6, 18-20, and 24 were rejected under 35 USC §103(a) as being obvious in view of Laroia and Applicants allegedly admitted prior art from the application. Each of the appealed claims stands or falls separately, and are being argued separately and identified under a separate heading, as required by 37 C.F.R. 41.37, as can be seen in Section VIII below.

## V. STATUS OF AMENDMENTS

Claims 1-30 stand as they were previously presented prior to the Office Action. No amendments have been submitted or entered since that time. Thus, claims 1-30 are pending, and their respective rejections are appealed. A response filed after the Office Action on October 1, 2007 ("the Response") did not contain any amendments and was entered by the Examiner.

## VI. SUMMARY OF THE INVENTION

The following discussion identifies support for the recited elements using paragraph number from the related U.S. Patent Publication 2005/0076283A1. Although 37 C.F.R. §41.37(c)(1)(v) indicates the use of page and line numbers, it is respectfully submitted that the paragraphs numbers from the published application are substantially equivalent thereto.

Independent claim 1, upon which claims 2-15 are dependent, recites a method, including a providing if a set of predetermined sequences of redundancy parameters *See, for example*, the Abstract and paragraphs [0011], [0021], [0025], [0037], [0039]-[0044], [0050], and [0052]-[0055]. At least one of the set of predetermined sequences is then selected. *See, for example*, the Abstract and paragraphs [0012], [0021], [0025], [0037], [0045], [0049], and [0056]-[0057]. The method also includes transmitting information indicating the selected at least one sequence to a terminal device to provide the redundancy parameters for an automatic repeat request processing at the terminal device. *See, for example*, the Abstract and paragraphs [0013], [0021], [0023], [0037]-[0038], [0042], and [0048].

Independent claim 16 recites a terminal device. *See, for example*, the User Equipment (UE) 10 described in FIG. 1 and paragraphs [0035]-[0036]. In communications, the UE is sometimes referred to as a cellular device, cellular phone, or a mobile device. The terminal device includes receiving means for receiving information indicating a selected sequence of redundancy parameters.

See, for example, the UE 10 described in FIG. 1 and paragraphs [0029], [0035], [0051], and [0055]. The terminal device further includes parameter generating means, operably connected to the receiving means, for generating the selected sequence of redundancy parameters for an automatic repeat request function in response to receipt of the information to apply a redundancy strategy to the automatic repeat request function. See, for example, the RV parameter generating unit 102 described in FIG. 2 and paragraphs [0051] and [0055].

Independent claim 23 recites a network device. See, for example, the node B 20 described in FIG. 1 and paragraphs [0035]-[0037]. In communications, the node B is sometimes referred to as a base station. The network device includes selecting means for selecting a sequence of redundancy parameters. See, for example, the node B 20 or the radio network controller (RNC) 30 described in FIG. 1 and paragraphs [0035]-[0037], [0039], [0045], [0049], and [0056]. Generating means in the network device are operably connected to the selecting means, for generating information indicating the selected sequence. See, for example, the RVS 202 in the node B 20 described in FIG. 1 and paragraph [0055]. Transmitting means operably connected to the selecting means for transmitting the information to a terminal device provide a communication link to the terminal device. See, for example, the node B 20 described in FIG. 1 and paragraphs [0036]-[0038] and the enhanced uplink DCH (E-DCH) channel disclosed at paragraph [0052].



Independent claim 28 recites a system, including a terminal device. *See, for example*, the User Equipment (UE) 10 described in FIG. 1 and paragraphs [0035]-[0036]. The terminal device configured to apply a redundancy strategy to an automatic repeat request function. *See, for example*, the repeat request functionality 100 provided in FIG. 2 and paragraphs [0051]-[0053]. The terminal device including a receiver configured to receive information indicating a selected sequence of redundancy parameters. *See, for example*, the UE 10 described in FIG. 1 and paragraphs [0029], [0035], [0051], and [0055]. A parameter generating unit, operably connected to the receiver, is configured to generate the selected sequence of redundancy parameters for the automatic repeat request function in response to the receipt of the information. *See, for example*, the RV parameter generating unit 102 described in FIG. 2 and paragraphs [0051] and [0055].

Continuing with claim 28, the system further includes a network device. *See, for example*, the node B 20 described in FIG. 1 and paragraphs [0035]-[0037]. The network device is operably connected to the terminal device and is configured to provide a communication link to the terminal device to provide redundancy parameters for an automatic repeat request processing at the terminal device. *See, for example*, the node B 20 described in FIG. 1 and paragraphs [0036]-[0038] and the enhanced uplink DCH (E-DCH) channel disclosed at paragraph [0052]. The network device includes a selecting unit configured to select a sequence of redundancy parameters. *See, for example*, the node B 20 or the radio network

controller (RNC) 30 described in FIG. 1 and paragraphs [0035]-[0037], [0039], [0045], [0049], and [0056]. The network device also includes a generator, operably connected to the selecting unit, configured to generate information indicating the selected sequence. *See, for example*, the RVS 202 in the node B 20 described in FIG. 1 and paragraph [0055]. The network device further includes a transmitter, operably connected to the selecting unit, configured to transmit the information to the terminal device. *See, for example*, the node B 20 described in FIG. 1 and paragraphs [0036]-[0038] and the enhanced uplink DCH (E-DCH) channel disclosed at paragraph [0052].

Independent claim 29, upon which claims 17-22 are dependent, recites a terminal device. *See, for example*, the User Equipment (UE) 10 described in FIG. 1 and paragraphs [0035]-[0036]. The terminal device includes a receiver configured to receive information indicating a selected sequence of redundancy parameters. *See, for example*, the UE 10 described in FIG. 1 and paragraphs [0029], [0035], [0051], and [0055]. The terminal device also includes a parameter generating unit, operably connected to the receiver, configured to generate the selected sequence of redundancy parameters for an automatic repeat request function in response to the receipt of the information to apply a redundancy strategy to the automatic repeat request function. *See, for example*, the RV parameter generating unit 102 described in FIG. 2 and paragraphs [0051] and [0055].

Independent claim 30, upon which claims 24-27 are dependent, recites a network device. *See, for example*, the node B 20 described in FIG. 1 and paragraphs [0035]-[0037]. The network device includes a selecting unit configured to select a sequence of redundancy parameters. *See, for example*, the node B 20 or the radio network controller (RNC) 30 described in FIG. 1 and paragraphs [0035]-[0037], [0039], [0045], [0049], and [0056]. The network device includes a generator, operably connected to the selecting unit, configured to generate information indicating the selected sequence. *See, for example*, the RVS 202 in the node B 20 described in FIG. 1 and paragraph [0055]. The network device also includes a transmitter, operably connected to the selecting unit, configured to transmit the information to a terminal device to provide a communication link to the terminal device. *See, for example*, the node B 20 described in FIG. 1 and paragraphs [0036]-[0038] and the enhanced uplink DCH (E-DCH) channel disclosed at paragraph [0052].

## VII. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

The grounds of rejection to be reviewed on appeal are as follows: the rejection of claims 1, 2, 7-17, 21-23, and 25-30 under 35 USC §102(e) as being anticipated by US Publication No. 2004/0228320 (Laroia); and the rejection of claims 3-6, 18-20, and 24 under 35 USC §103(a) as being obvious in view of Laroia and Applicants' allegedly admitted prior art from the specification.

## VIII. APPELLANT'S ARGUMENTS

Appellant respectfully submit that each of the pending claims 1-30 recites subject matter that is neither disclosed nor suggested by the cited art. Each of the claims is being argued separately, and thus each of the claims stands or falls alone.

**A. The rejection of the rejection of claims 1, 2, 7-17, 21-23, and 25-30 under 35 USC §102(e) as being anticipated by US Publication No. 2004/0228320 (Laroia) is clearly in error and should be reversed.**

### 1. Claim 1

Claim 1 is set forth in Appendix I, and briefly discussed at Section VI above. Appellant respectfully submits that Laroia fails to disclose or suggest all of the elements of claim 1. “A rejection for anticipation under section 102 requires that each and every limitation of the claimed invention be disclosed in a single prior art reference.’ *In re Paulsen*, 30 F.3d 1475, 1478-79 [31 USPQ2d 1671] (Fed. Cir. 1994); see *Karsten Manufacturing Corp. v. Cleveland Golf Co.*, 242 F.3d 1376, 1383 [58 USPQ2d 1286] (Fed. Cir. 2001) (‘Invalidity on the ground of ‘anticipation’ requires lack of novelty of the invention as claimed... . that is, all of the elements and limitations of the claim must be shown in a single prior reference, arranged as in the claim.’).” *In re Buszard*, 84 USPQ2d 1749, 1750 (Fed. Cir. 2007). Because

Laroia fails to disclose all of the elements and limitations of the claim, it is respectfully submitted that the rejection is improper and it is respectfully requested that the rejection be withdrawn.

Laroia generally describes a repeat request method and apparatus in which different NAK signals are used to indicate different relative levels of success in regard to an unsuccessful attempt to decode a received signal. An ACK signal is used in the case of successful decoding. FIG. 5 illustrates an example of using incremental redundant codes, e.g., incremental redundant LDPC codes, in accordance with the invention. As shown in FIG. 5 of Laroia, in a first traffic segment 520, the information bits 510 and the first part of the parity check bits 514 are transmitted. See paragraphs [0078]-[0080]. The combination of the coded information bits 510 and the first part 514 of the parity check bits form a first set of encoded information which is transmitted. The remaining parity check bits, the second through fourth parity check bits, form a set of redundant information, which is stored and used in the event of a NAK.

In essence, Laroia provides that if the receiver 522 with its decoder 524 cannot decode the information bits 510 and sends a NAK 526, the transmitter 502 sends the second part of the parity check bits 516 in a second traffic segment 528. The receiver 522 uses both the received segments 520, 528 in the decoding process in an attempt to decode the information bits 510. If the receiver 522 still cannot decode the information bits 510 as evidenced by the receiving device 522

sending another NAK 530 in an acknowledgement segment corresponding to the second traffic segment 528. Then, the transmitter 502 transmits the third part of the parity check bits 518 in a third traffic segment 532. The receiver 522 should use some or all of the received segments, e.g., segments 520, 528, 532 to decode the information bits 510. If the receiver 522 decodes the information bits 510 successfully at some time, then the transmitter may discard the unused parity check bits.

As briefly discussed at Section VI above, claim 1 recites that a predetermined sequence of redundancy parameters is provided, from which one sequence is selected and information indicating the selected sequence is transmitted to a terminal device. Therefore, a network operator is able to select redundancy version strategies to be used by the terminal device, while little signaling is required between the network and the terminal device.

In contrast thereto, as described above, Laroia fails to teach or suggest, at least, “selecting at least one of said set of predetermined sequences,” as recited in independent claim 1. As further provided in independent claim 1, based on the selected at least one sequence providing said redundancy parameters transmitted to a terminal device, the terminal device performs an automatic repeat request processing.

There is no selection of at least one of the set of predetermined sequences in Laroia. Instead, Laroia provides a successive transmission of redundancy

parameters until reaching a successful decoding. Laroia appears to provide a block of redundant bits 512 including a first part 514, a second part 516, a third part 518, and a fourth part 519. The first part of the parity check bits 514 is transmitted in combination with the information bits 510. Then, each remaining part of the parity check bits is successively transmitted in the event of a NAK whenever the receiver 522 is unable to decode the information bits 510 associated with the transmitted parity check bits. Therefore, the essence of the description of Laroia is to achieve an efficient automatic repeat request in a multiple access wireless communications system by providing a large block of parity check bits 512 associated with the big parity check matrix used by the transmitter (See Laroia, *for example*, at page 9, lines 8-10).

Thus, the configuration proposed by Laroia is different from the recitations of the embodiments of the present invention recited in claim 1 in which the transmission of a selected predetermined sequence amongst a set of predetermined sequences of redundancy parameters differs from the successive transmission of redundancy parameters until reaching a successful decoding. Therefore, the automatic repeat request method and apparatus disclosed in Laroia do not anticipate the selection and the transmission of the selected at least one sequence to provide redundancy parameters recited in pending claim 1.

The Advisory Action's response, on page 2 thereof, to the Response filed October 1, 2007, was to disagree "with the Applicant interpretations of Larolia [*sic*]



disclosure. Larrolia *[sic]* provides a predetermined sequence (524), (516), 918) and (519) of redundancy *[sic]* bits and teaches NAK signal selection (See abstract, lines (8-11) in Larolia *[sic]*)." The Advisory Action did not address Applicants' arguments, as summarized above, that the redundancy bits are predefined and thus are not "selected" as recited in claim 1. Similarly, the Advisory Action does not address Applicants' arguments, as summarized above, and that the addition of a NAK signal to a transmission is not equivalent to the recitation of forming a transmitted sequence using selected redundancy parameters. The Advisory Action further does not address Applicants' arguments that the present application addresses a different technical problem using a different technical solution to achieve different technical results.

Accordingly, the Advisory Action's analysis is errant for exactly the same reasons that the Office Action's analysis is errant. Accordingly, the rejection of claim 1 as being anticipated by Laroia cannot be supported by the rejections of record.

## 2. Claim 2

Claim 2 depends from and further limits claim 1. Accordingly, as with claim 1, claim 2 clearly recites subject matter that is neither disclosed nor suggested in Laroia. Thus, for at least this reason, the rejection of claim 2 should be reversed.

### 3. Claim 7

Claim 7 depends from and further limits claim 1. Accordingly, as with claim 1, claim 7 clearly recites subject matter that is neither disclosed nor suggested in Laroia. Thus, for at least this reason, the rejection of claim 7 should be reversed.

### 4. Claim 8

Claim 8 depends from and further limits claim 1. Accordingly, as with claim 1, claim 8 clearly recites subject matter that is neither disclosed nor suggested in Laroia. Thus, for at least this reason, the rejection of claim 8 should be reversed.

### 5. Claim 9

Claim 9 depends from and further limits claim 1. Accordingly, as with claim 1, claim 9 clearly recites subject matter that is neither disclosed nor suggested in Laroia. Thus, for at least this reason, the rejection of claim 9 should be reversed.

### 6. Claim 10

Claim 10 depends from and further limits claim 1. Accordingly, as with claim 1, claim 10 clearly recites subject matter that is neither disclosed nor suggested in Laroia. Thus, for at least this reason, the rejection of claim 10 should be reversed.

#### 7. Claim 11

Claim 11 depends from and further limits claim 1. Accordingly, as with claim 1, claim 11 clearly recites subject matter that is neither disclosed nor suggested in Laroia. Thus, for at least this reason, the rejection of claim 11 should be reversed.

#### 8. Claim 12

Claim 12 depends from and further limits claim 1. Accordingly, as with claim 1, claim 12 clearly recites subject matter that is neither disclosed nor suggested in Laroia. Thus, for at least this reason, the rejection of claim 12 should be reversed.

#### 9. Claim 13

Claim 13 depends from and further limits claim 1. Accordingly, as with claim 1, claim 13 clearly recites subject matter that is neither disclosed nor suggested in Laroia. Thus, for at least this reason, the rejection of claim 13 should be reversed.

#### 10. Claim 14

Claim 14 depends from and further limits claim 1. Accordingly, as with claim 1, claim 14 clearly recites subject matter that is neither disclosed nor suggested in Laroia. Thus, for at least this reason, the rejection of claim 14 should be reversed.

#### 11. Claim 15

Claim 15 depends from and further limits claim 1. Accordingly, as with claim 1, claim 15 clearly recites subject matter that is neither disclosed nor suggested in Laroia. Thus, for at least this reason, the rejection of claim 15 should be reversed.

#### 12. Claim 16

Independent claim 16 has its own scope. However, as recognized by the Office Action, claim 16 recites at least some of the above-identified features of claim 1. For example, claim 16 also recites a selection of at least one of the set of predetermined sequences. Accordingly, Laroia has further deficiencies with respect to independent claim 16. Thus, as with claim 1, claim 16 clearly recites subject matter that is neither disclosed nor suggested in Laroia. Thus, for at least this reason, the rejection of claim 16 should be reversed.

#### 13. Claim 23

Independent claim 23 has its own scope. However, as recognized by the Office Action, claim 23 recites at least some of the above-identified features of claims 1 and 16. For example, claim 23 also recites a selection of at least one of the set of predetermined sequences. Accordingly, Laroia has further deficiencies with respect to independent claim 23. Thus, as with claims 1 and 16, claim 23

clearly recites subject matter that is neither disclosed nor suggested in Laroia. Thus, for at least this reason, the rejection of claim 23 should be reversed.

#### 14. Claim 28

Independent claim 28 has its own scope. However, as recognized by the Office Action, claim 28 recites at least some of the above-identified features of claims 1, 16 and 23. For example, claim 28 also includes recitations related to a selection of at least one of the set of predetermined sequences. Accordingly, Laroia has further deficiencies with respect to independent claim 28. Thus, as with claims 1, 16, and 23, claim 28 clearly recites subject matter that is neither disclosed nor suggested in Laroia. Thus, for at least this reason, the rejection of claim 28 should be reversed.

#### 15. Claim 29

Independent claim 29 has its own scope. However, as recognized by the Office Action, claim 29 recites at least some of the above-identified features of claims 1, 16, 23, and 28. For example, claim 29 also includes recitations related to a selection of at least one of the set of predetermined sequences. Accordingly, Laroia has further deficiencies with respect to independent claim 29. Thus, as with claims 1, 16, 23, and 28, claim 29 clearly recites subject matter that is neither

disclosed nor suggested in Laroia. Thus, for at least this reason, the rejection of claim 29 should be reversed.

#### 16. Claim 17

Claim 17 depends from and further limits claim 29. Accordingly, as with claim 29, claim 17 clearly recites subject matter that is neither disclosed nor suggested in Laroia. Thus, for at least this reason, the rejection of claim 17 should be reversed.

#### 17. Claim 22

Claim 22 depends from and further limits claim 29. Accordingly, as with claim 29, claim 22 clearly recites subject matter that is neither disclosed nor suggested in Laroia. Thus, for at least this reason, the rejection of claim 22 should be reversed.

#### 18. Claim 23

Claim 23 depends from and further limits claim 29. Accordingly, as with claim 29, claim 23 clearly recites subject matter that is neither disclosed nor suggested in Laroia. Thus, for at least this reason, the rejection of claim 23 should be reversed.

#### 19. Claim 30

Independent claim 30 has its own scope. However, as recognized by the Office Action, claim 30 recites at least some of the above-identified features of claims 1, 16, 23, 28, and 29. For example, claim 30 also includes recitations related to a selection of at least one of the set of predetermined sequences. Accordingly, Laroia has further deficiencies with respect to independent claim 30. Thus, as with claims 1, 16, 23, 28 and 29, claim 30 clearly recites subject matter that is neither disclosed nor suggested in Laroia. Thus, for at least this reason, the rejection of claim 30 should be reversed.

#### 20. Claim 25

Claim 25 depends from and further limits claim 30. Accordingly, as with claim 30, claim 25 clearly recites subject matter that is neither disclosed nor suggested in Laroia. Thus, for at least this reason, the rejection of claim 25 should be reversed.

#### 21. Claim 26

Claim 26 depends from and further limits claim 30. Accordingly, as with claim 30, claim 26 clearly recites subject matter that is neither disclosed nor suggested in Laroia. Thus, for at least this reason, the rejection of claim 26 should be reversed.

## 22. Claim 27

Claim 27 depends from and further limits claim 30. Accordingly, as with claim 30, claim 27 clearly recites subject matter that is neither disclosed nor suggested in Laroia. Thus, for at least this reason, the rejection of claim 27 should be reversed.

**B. The rejection of claims 3-6, 18-20, and 24 under 35 USC §103(a) as being obvious in view of Laroia and Applicant Allegedly Admitted Prior Art (AAPA) is clearly in error and should be reversed.**

## 1. Claim 3

Claim 3 depends from and further limits claim 1. At least some of the deficiencies of the combination of Laroia with respect to claim 1 are discussed above. Applicants allegedly admitted prior art (AAPA) does not remedy the above-identified deficiencies of Laroia, and consequently the combination of Laroia and AAPA fails to disclose or suggest all of the elements of any of the presently pending claims. As set forth in MPEP 2143, "To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to



combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.” Because the combination of references fails to teach or suggest all the claim limitations, the rejection of claim 3 is not a *prima facie* rejection, and consequently should be reversed.

AAPA generally describes uplink packet data of Wideband Code Division Multiple Access (WCDMA) systems covering radio transmission of data from a mobile unit or mobile terminal, called User Equipment (UE) in third generation terminology, to a fixed station, called Node B in third generation terminology. Here, the case of erroneous reception of data packets is handled by Radio Link Control (RLC) signaling. See paragraph [0003]. However, AAPA further provides in paragraph [0003] that such configuration is disadvantageous in that a retransmission will require relatively large buffers and will introduce significant delays. One of the technologies under investigation in connection with enhanced uplink data is fast H-ARQ, where the packet retransmissions are handled at either physical layer or Media Access Control (MAC) layer and, thus, in principle at the Node B instead of the Radio Network Controller (RNC).

However, AAPA does not cure the deficiencies of Laroia. Similarly to Laroia, AAPA is silent as to teaching or suggesting, at least, “selecting at least one of said set of predetermined sequences, and transmitting information indicating the selected at least one sequence to a terminal device,” as recited in independent

claim 1, at least, “a receiver configured to receive information indicating a selected sequence of redundancy parameters, and a parameter generating unit, operably connected to said receiver.”

Accordingly, it is unsurprising that AAPA fails to disclose or suggest the above identified features of claim 1 with respect to which the combination of Laroia is deficient. Thus, the combination of Laroia and AAPA fails to disclose or suggest all of the elements of claim 3, and the rejection of claim 3 should be withdrawn.

Furthermore, Applicants respectfully submit that the methodology disclosed in the present application is not admitted prior art, but merely represents a alternative solution that was found to be problematic for the reasons disclosed in the application.

## 2. Claim 4

Claim 4 depends from and further limits claim 3. Accordingly, as with claim 3, claim 4 clearly recites subject matter that is neither disclosed nor suggested in the combination of Laroia and AAPA. Thus, for at least this reason, the rejection of claim 4 should be reversed.

## 3. Claim 5

Claim 5 depends from and further limits claim 3. Accordingly, as with claim 3, claim 5 clearly recites subject matter that is neither disclosed nor suggested in

the combination of Laroia and AAPA. Thus, for at least this reason, the rejection of claim 5 should be reversed.

#### 4. Claim 6

Claim 6 depends from and further limits claim 3. Accordingly, as with claim 3, claim 6 clearly recites subject matter that is neither disclosed nor suggested in the combination of Laroia and AAPA. Thus, for at least this reason, the rejection of claim 6 should be reversed.

#### 5. Claim 18.

Claim 18 depends from and further limits claim 29. At least some of the deficiencies of the combination of Laroia with respect to claim 29 are discussed above. As described above, AAPA does not remedy the above-identified deficiencies of Laroia, and consequently the combination of Laroia and AAPA fails to disclose or suggest the limitation of, at least, “configured to generate said selected sequence of redundancy parameters for an automatic repeat request function in response to the receipt of said information,” as recited in independent claim 29. Thus, the combination of Laroia and AAPA fails to disclose or suggest all of the elements of claim 18, and the rejection of claim 18 should be withdrawn.

#### 6. Claim 19

Claim 19 also depends from and further limits claim 29. Accordingly, as with claim 18, claim 19 clearly recites subject matter that is neither disclosed nor suggested in the combination of Laroia and AAPA. Thus, for at least this reason, the rejection of claim 19 should be reversed.

#### 7. Claim 20

Claim 20 depends from and further limits claim 29. Accordingly, as with claims 18 and 19, claim 20 clearly recites subject matter that is neither disclosed nor suggested in the combination of Laroia and AAPA. Thus, for at least this reason, the rejection of claim 20 should be reversed.

#### 8. Claim 24.

Claim 24 depends from and further limits claim 30. At least some of the deficiencies of the combination of Laroia with respect to claim 30 are discussed above. As described above, AAPA does not remedy the above-identified deficiencies of Laroia, and consequently the combination of Laroia and AAPA fail to disclose or suggest the limitation of, at least, "a selecting unit configured to select a sequence of redundancy parameters, a generator, operably connected to said selecting unit, configured to generate information indicating said selected sequence, and a transmitter, operably connected to said selecting unit, configured

to transmit said information to a terminal device,” as recited in independent claim 30. Thus, the combination of Laroia and AAPA fails to disclose or suggest all of the elements of claim 24, and the rejection of claim 24 should be withdrawn.

## IX. CONCLUSION

For all of the above noted reasons, it is strongly contended that certain clear differences exist between the present invention as claimed in claims 1-30 and the prior art relied upon by the Examiner. It is further contended that these differences are more than sufficient such that the present invention would not have been obvious to a person having ordinary skill in the art at the time the invention was made.

This final rejection being in error, therefore, it is respectfully requested that this honorable Board of Patent Appeals and Interferences reverse the Examiner's decision in this case and indicate the allowability of application claims 1-30.

In the event that this paper is not being timely filed, the applicants respectfully petition for an appropriate extension of time. Any fees for such an extension together with any additional fees which may be due with respect to this paper may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,

SQUIRE, SANDERS & DEMPSEY LLP

A handwritten signature in black ink, consisting of a large loop followed by a series of smaller loops and a long horizontal stroke extending to the right.

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Encls: Appendix 1 - Claims on Appeal  
Appendix 2 - Evidence  
Appendix 3 - Related Proceedings

## APPENDIX 1

### CLAIMS ON APPEAL

1. (Previously Presented) A method, comprising:  
providing a set of predetermined sequences of redundancy parameters;  
selecting at least one of said set of predetermined sequences; and  
transmitting information indicating the selected at least one sequence to a terminal device to provide said redundancy parameters for an automatic repeat request processing at said terminal device.
2. (Previously Presented) The method according to claim 1, further comprising:  
providing said information comprising at least one of an index and a pointer to said selected at least one predetermined sequence.
3. (Previously Presented) The method according to claim 1, wherein said transmitting of said information is performed by using a higher layer signaling.
4. (Previously Presented) The method according to claim 3, wherein, in said transmitting of said information, said higher layer signaling comprises Radio Resource Control signaling.



5. (Previously Presented) The method according to claim 3, further comprising:

using an outband signaling for notifying about redundancy parameters used from said selected at least one sequence.

6. (Previously Presented) The method according to claim 5, wherein, in said using of said outband signaling, the amount of said outband signaling is made dependent from said selected at least one sequence.

7. (Previously Presented) The method according to claim 1, wherein said transmitting of said information is performed at a beginning of a connection.

8. (Previously Presented) The method according to claim 1, wherein, in said providing of said set of predetermined sequences, said set of predetermined sequences comprises a predefined fixed set.

9. (Previously Presented) The method according to claim 1, wherein, in said providing of said set of predetermined sequences, said redundancy parameters comprise a first parameter defining a self-decodable redundancy version and a second parameter defining bits which are to be punctured.

10. (Previously Presented) The method according to claim 1, wherein, in said providing of said set of predetermined sequences, said set of predetermined sequences comprise sequences relating to at least one of a chase combining strategy, a partial incremental redundancy strategy, and a full incremental redundancy strategy.

11. (Previously Presented) The method according to claim 1, wherein, in said transmitting of said information, said information comprises said sequence of redundancy parameters.

12. (Previously Presented) The method according to claim 1, wherein said transmission of said information is performed by broadcasting said information to substantially all terminal devices located within a predetermined area.

13. (Previously Presented) The method according to claim 12, wherein said transmission of said information is performed by broadcasting said information to all terminal devices located within a predetermined area.

14. (Previously Presented) The method according to claim 1, wherein said transmitting of said information is performed via a wireless communication link.

15. (Previously Presented) The method according to claim 1, further comprising:

performing said automatic repeat request processing for a data transmission on an enhanced uplink dedicated channel.

16. (Previously Presented) A terminal device , comprising:

receiving means for receiving information indicating a selected sequence of redundancy parameters; and

parameter generating means, operably connected to said receiving means, for generating said selected sequence of redundancy parameters for an automatic repeat request function in response to receipt of said information to apply a redundancy strategy to said automatic repeat request function.

17. (Previously Presented) The terminal device according to claim 29, further comprising:

a mobile terminal of a cellular communication network, operably connected to said receiver.

18. (Previously Presented) The terminal device according to claim 29, wherein said receiver is configured to receive said information via Radio Resource Control signaling.

19. (Previously Presented) The terminal device according to claim 29, wherein said terminal device is configured to notify about redundancy parameters used from said selected at least one sequence by using an outband signaling.

20. (Previously Presented) The terminal device according to claim 29, wherein said terminal device is configured to set an amount of said outband signaling in response to said received information.

21. (Previously Presented) The terminal device according to claim 29, wherein said parameter generating unit is configured to generate a first parameter defining a self-decodable redundancy version and a second parameter defining bits which are to be punctured.

22. (Previously Presented) The terminal device according to claim 29, further comprising:

a storing unit, operably connected to said receiving means, configured to store a set of sequences of redundancy parameters and wherein said information comprises at least one of a pointer and an index to said stored set of sequences.

23. (Previously Presented) A network device, comprising:

selecting means for selecting a sequence of redundancy parameters;  
generating means, operably connected to said selecting means, for generating information indicating said selected sequence; and  
transmitting means, operably connected to said selecting means, for transmitting said information to a terminal device to provide a communication link to said terminal device.

24. (Previously Presented) The network device according to claim 30, further comprising:

a receiver, operably connected to said selecting means, configured to receive a notification about used redundancy parameters via an outband signaling channel.

25. (Previously Presented) The network device according to claim 30, wherein said transmitter is configured to transmit said information in a broadband channel covering a predetermined area.

26. (Previously Presented) The network device according to claim 30, further comprising:

a storing unit, operably connected to said selecting means, configured to store a set of sequences of said redundancy parameters.

27. (Previously Presented) The network device according to claim 30, wherein said network device comprises at least one of a base station device and a radio network controller device.

28. (Previously Presented) A system, comprising:

- a terminal device configured to apply a redundancy strategy to an automatic repeat request function, said terminal device comprising;
  - a receiver configured to receive information indicating a selected sequence of redundancy parameters, and
  - a parameter generating unit, operably connected to said receiver, configured to generate said selected sequence of redundancy parameters for said automatic repeat request function in response to the receipt of said information; and
- a network device, operably connected to a terminal device, configured to provide a communication link to said terminal device to provide redundancy parameters for an automatic repeat request processing at said terminal device, said network device comprising
  - a selecting unit configured to select a sequence of redundancy parameters,

a generator, operably connected to said selecting unit, configured to generate information indicating said selected sequence, and

a transmitter, operably connected to said selecting unit, configured to transmit said information to said terminal device.

29. (Previously Presented) A terminal device, comprising:

a receiver configured to receive information indicating a selected sequence of redundancy parameters; and

a parameter generating unit, operably connected to said receiver, configured to generate said selected sequence of redundancy parameters for an automatic repeat request function in response to the receipt of said information to apply a redundancy strategy to said automatic repeat request function.

30. (Previously Presented) A network device, comprising:

a selecting unit configured to select a sequence of redundancy parameters;

a generator, operably connected to said selecting unit, configured to generate information indicating said selected sequence; and

a transmitter, operably connected to said selecting unit, configured to transmit said information to a terminal device to provide a communication link to said terminal device.



## APPENDIX 2

### **EVIDENCE APPENDIX**

No evidence under section 37 C.F.R. 1.130, 1.131, or 1.132 has been entered or will be relied upon by Appellants in this appeal.



## APPENDIX 3

### RELATED PROCEEDINGS APPENDIX

No decisions of the Board or of any court have been identified under 37 C.F.R. §41.37(c)(1)(ii).